Course Syllabus

Franklin High School	2020-2021

DIRECTIONS: For each course, complete the syllabus and share with your evaluating/supervising administrator **as a pdf** ("File-download-PDF document"). Syllabi will be posted on the FHS website under your name for the public to view.

Course Overview

NOTE: For core classes, all elements of this section (except for name and contact information) are the same.

Course Title: Biology 1 + 2: NGSS	
Instructor Name: Britney Verissimo	Contact Info: bverissimo@pps.net
Grade Level(s): 11th	
Credit Type: (i.e. "science", "elective") Science, Biology	# of credits per semester: 1.0

Prerequisites (if applicable):

NGSS Physics; NGSS Chemistry recommended

General Course Description:

Welcome to NGSS Biology. This course covers the foundational principles of modern life science as outlined in the Next Generation Science Standards (NGSS). We will learn the content and applications of Biology by using science and engineering practices utilized by professionals in STEM fields.

Students will work in small teams to complete three major investigations during the course, contributing data to ongoing research projects.

1. Students will explore ecosystem health using arthropods as an indicator species.
2. Students will investigate natural selection through blue-green algae that live in extreme environments.
3. Students will collaborate to engineer a food system, and will measure the changes their choices make in efficiency of food production.

Additionally, there will be a focus on how we can utilize the tools of biology to solve problems identified at the local level - from air pollution to climate change - and how those local solutions can contribute to global progress on such issues.

Prioritized National/State Standards:

We will address the NGSS performance expectations for Life Science and some of the performance expectations for Earth and Space Science as well as Engineering and Technology. For a more detailed look at the specific standards, see this short link: http://bit.ly/NGSS_Bio

The following headings provide a thematic overview of the standards for the year:
1) Structure and Function
2) Inheritance and Variation of Traits
3) Matter and Energy in Organisms and Ecosystems
4) Interdependent Relationships in Ecosystems
5) Natural Selection and Evolution

Course Details
Learning Expectations
Materials/Texts: All lessons and course information is locate in the Biology Canvas page. There is no textbook for this class. https://lms.pps.net/courses/48836
Course Content and Schedule: Forecasted schedule for this Biology course. Length and order of units may vary due to the demands and constraints of online learning: Unit 1 - Ecosystems & Biodiversity Unit 2 - Biomolecules Unit 3 - Cells to Organisms Unit 4 - Genomics Unit 5 - Evolution Unit 6 - Matter, Energy, & Climate Change
Differentiation/accessibility strategies and supports (TAG, ELL, SpEd, other): SpEd: Students with this designation will have assignments altered or lessened in accordance with their IEPs. Students' SpEd case managers will also be communicated with regularly to ensure the student's needs and accommodations are being met. Students will also be given the option to verbally complete assignments and assessments. ELL: Students who are English Language Learners will be given additional supports for learning, including but not limited to, access to teacher notes and sentence frames. Students will also be given the option to verbally complete assignments and assessments. TAG: Students with this designation will be given relevant extension and challenge activities that coordinate with concepts covered in each unit. These activities may include, but are not limited to, additional experiments to run at home, extension math concepts and activities to study and complete, and deeper thinking questions. Other: Students with other designations will be assessed as needs arise.
Safety issues and requirements (if applicable): Not applicable due to distance learning. If/when we return to the classroom, students will be required to review the safety module and will be required to sign a Safety Contract, in accordance with district guidelines, before beginning any experiments in the classroom.
Classroom norms and expectations: This is a demanding science class which will require dedication to the classwork and participating. I expect students to be in class on time each day, participate in class discussions, small group work, and labs, and turn in completed assignments. However, especially given the nature of online learning, I understand that life happens and students may have to miss part or all of a class for various reasons. Please communicate with me if anything is going on that will keep you from coming to class. If part of a class or an entire class is missed, it is the student's responsibility to

check Canvas, and then come meet with me during an asynchronous or tutorial session to get caught up.

As a science classroom and community, we must all agree to and follow certain online norms and expectations.

1. Be respectful of classmates in online class sessions. This includes during video, in the chat box, in discussions and small groups.

2. Keep your mic muted when others are talking. Do not interrupt peers when they are talking.

3. Listen to peers without judgement.

4. Encourage and support classmates. Help people out who have questions.

5. Show up to class prepared and ready to participate. And don't give up!

All voices are to be respected and heard in this class. Scientific discourse involves discussing concepts and ideas that often have no one correct answer, with many stakeholders who have firm views on what is the best course of action. Thus, we will practice discussing a variety of science topics throughout the school year.

All rules of student conduct outlined in the student handbook are in effect in this class. Pay particular attention to rules pertaining to the policies related to cell phones and academic dishonesty/plagiarism. Science is built upon the work of many others and citing your sources is one way to acknowledge their contribution to your growth and learning.

Behavioral Expectations:
At Franklin High School, in addition to following all school rules, we expect staff and students to:

Strive to be...

Thoughtful	We celebrate the diversity and recognize the varied learning needs of our peers We put time and effort into our work We are engaged in the classroom and learn bell-to-bell We process complex issues with care
Respectful	We respect the diverse learning needs of our peers. We follow directions and class norms. We do not use racist, sexist, or homophobic language of any kind. We keep distractions, such as electronic devices, put away during class time, unless otherwise directed.
Organized	We are present and on time for class. We bring all necessary materials. We keep track of assignments, deadlines, and activities.
Neighborly	We only leave class when we have a hall pass. We treat the learning environment with care.

	We clean up after ourselves. We help when we see a need.
Generous	We share our resources with each other. We offer a fresh start to staff and ourselves. We help each other when needed.

If problems arise as a result of disregard for behavioral expectations, these are the **consequences:**

1. Warning
2. Talk to you privately
3. Conference with you and school support team / Level 1 Report documentation
4. Call Home
5. If these steps do not resolve the problem, a conference with school administrator will be necessary / Level 2-3 Referral

Evidence of Course Completion

Assessment of Progress and Achievement:

Performance Expectations for NGSS Biology:

1. Constructing Explanations and Communicating Scientific Information
At the end of this class, students should be able to:
a. explain scientific knowledge and the evidence supporting that scientific knowledge
b. create or interpret scientific models, and connect the model to the evidence
c. obtain, analyze and evaluate scientific information

2. Asking Questions and Identifying Problems
At the end of this class, students should be able to:
a. explain a scientific question and the connection between that question and content in class
b. formulate a testable hypothesis and make predictions
c. explain the independent variable, dependent variable, and how to measure each
d. explain an engineering problem and the criteria and constraints specific to that problem

3. Analyzing and Interpreting Data and Designing Solutions
At the end of this class, students should be able to:
a. present data in tables, graphs and other relevant forms
b. explain conclusions based on data through claim, evidence, reasoning
c. evaluate whether the criteria and constraints of an engineering design challenge were met by the design proposed
d. propose novel questions based on the results of an experiment

4. Applications of Science in Society
At the end of this class, students should be able to:
a. explain the ways in which Biology is applied to solve problems and answer questions in the real world
b. discuss and evaluate the ethical impacts of how Biology is applied to solve problems and answer questions
c. document the work of others and sources of information used

Progress Reports/Report Cards (what a grade means):

The skills and knowledge you gain in biology this semester will be assessed in many different ways. Some of the ways in which you will be assessed will include, but aren't limited to, the following: 1) classwork and daily participation (this may include warm-ups, discussions and small group work); 2) assessments (formative and summative); 3) projects (these may be individual or group); and 4) labs and lab reports.

Your grades will be given based on proficiency scoring:

4= highly proficient; 3= proficient; 2= close to proficient; 1= developing proficiency/did not turn in

At the grading terms, your average proficiency score will be translated to a letter grade based on the following:

A= 4.0-3.6

B= 3.5-3.0

C= 2.9-2.5

D= 2.4-2.0

NP= <2.0

Your official grade for the class will be in SYNERGY ONLY. There will be many different tasks, assignments and assessments conducted in Canvas, but the grade that you might see in Canvas is not accurate, and it will not match what you see in Synergy. Please always look at Synergy when in doubt and to get an up-to-date picture of your grade.

Career Related Learning Experience (CRLEs) and Essential Skills:

N/A

Communication with Parent/Guardian

What methods are used to communicate curriculum, successes, concerns, etc.?

Email (bverissimo@pps.net), Remind app, Canvas, Synergy

Personal Statement and other needed info

My first priority, for each of my students, is their health and well-being. I care about each student and how they are doing mentally, physically and emotionally. I understand that there are a lot of stressors on my students right now for many different reasons. I am here to meet each student where they are at, and guide them with care and compassion.

My background:
This will be my fifth year working in Portland Public Schools. I have held various roles, including paraeducator, student teacher, and now licensed teacher. This is my second year at Franklin, and I am so happy to be back! This 202-2021 school year I will be teaching Chemistry and Biology.

I received my Bachelor of Science in Evolution and Ecology, with a minor in Environmental Policy, from the University of California, Davis in 2011. I attended Portland State University for graduate school and received my Master of Education in 2019.

I love the outdoors and challenging myself athletically. I played soccer and basketball growing up, and in college I was on the rugby team at UCD. I mostly enjoy hiking and playing soccer these days. I also enjoy going to the beach to enjoy the peace that the ocean and sand gives me. During my free time, I love to read, cook and garden. My two cats, Willy (pictured above) and Donnie also keep me entertained! During school breaks, I love to travel and I also work for my aunt and uncle who own a farm in Aurora.